



# RTTV Summary Sheet

Notes:  
 ER = External Reflectance  
 SC = Shading Coefficient  
 VLT = Visible Light Transmittance  
 Window and skylight data should represent the major proportion of its use in the development.

PNAP  
**APP-156**  
 Appendix **A**

Address: Proposed Garden House Development at R.P. of Lot No. 385 in D.D. 352 Area 1A/1B Discovery Bay Lantau Island - House F		BD Ref. No. BD 2/9019/08
Building Type:	Residential	
RTTV calculated by	<input checked="" type="checkbox"/> 1. Registered Professional Engineers <input type="checkbox"/> 2. Architect <input type="checkbox"/> 3. Others, please specify:	
No. of Storeys (Residential Units)	2	

Table 1

Deemed to Satisfy RTTV <sub>Wall</sub>								
Facade Orientation Facing	N	E	S	W				
Average Absorptivity	0.5	0.5	0.5	0.5				
Average Window to Wall Ratio	0.38	0.43	0.26	0.26				
Shading Coefficient of Glazing	0.45	0.45	0.45	0.45				
Average Shading Coefficient of Facade	0.45	0.45	0.45	0.45				
Visible Light Transmittance	51 %	51 %	51 %	51 %	%	%	%	%
External Reflectance	16 %	16 %	16 %	16 %	%	%	%	%

Table 2

RTTV <sub>Wall</sub>																	
Facade Orientation Facing		N				E				S				W			
Wall Orientation Factor		0.79				1.072				0.975				1.131			
Total External Wall Area (Residential Units)		51.10 m <sup>2</sup>	Window to Wall Ratio = 0.41			197.00 m <sup>2</sup>	Window to Wall Ratio = 0.43			80.00 m <sup>2</sup>	Window to Wall Ratio = 0.26			150.00 m <sup>2</sup>	Window to Wall Ratio = 0.26		
Total Window Factor		21.10 m <sup>2</sup>				84.00 m <sup>2</sup>				20.80 m <sup>2</sup>				39.00 m <sup>2</sup>			
Heat Conduction	Opaque Wall	2.09 W/m <sup>2</sup>				2.77 W/m <sup>2</sup>				3.25 W/m <sup>2</sup>				3.77 W/m <sup>2</sup>			
	Window	0.38 W/m <sup>2</sup>				0.54 W/m <sup>2</sup>				0.30 W/m <sup>2</sup>				0.34 W/m <sup>2</sup>			
Window	Glass Type	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= % ER= %	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= % ER= %	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= % ER= %	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= % ER= %
		<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= % ER= %	<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= % ER= %	<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= % ER= %	<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= % ER= %
		<input checked="" type="checkbox"/> Clear	Area= 21.10m <sup>2</sup>	SC= 0.45	VLT= 51 % ER= 16 %	<input checked="" type="checkbox"/> Clear	Area= 84.00m <sup>2</sup>	SC= 0.45	VLT= 51 % ER= 16 %	<input checked="" type="checkbox"/> Clear	Area= 20.80m <sup>2</sup>	SC= 0.45	VLT= 51 % ER= 16 %	<input checked="" type="checkbox"/> Clear	Area= 39.00m <sup>2</sup>	SC= 0.45	VLT= 51 % ER= 16 %
	Double Glazing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
External Shading	Overhang	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
	Sidfin	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Solar Radiation through Glazing		6.13 W/m <sup>2</sup>				8.59 W/m <sup>2</sup>				4.76 W/m <sup>2</sup>				5.52 W/m <sup>2</sup>			
Average Absorptivity		0.5				0.5				0.5				0.5			
RTTV <sub>Wall</sub> at each facade		8.60 W/m <sup>2</sup>				11.89 W/m <sup>2</sup>				8.31 W/m <sup>2</sup>				9.63 W/m <sup>2</sup>			
Overall RTTV <sub>Wall</sub>		10.23 W/m <sup>2</sup>															

Table 3

RTTV <sub>Roof</sub>											
Roof Orientation Factor		2.16									
Total Roof Area (Residential Units)		170.90 m <sup>2</sup>									
Total Skylight Area		0.00 m <sup>2</sup>									
Heat Conduction	Roof	2.73 W/m <sup>2</sup>									
	Skylight	0.00 W/m <sup>2</sup>									
Skylight	Glass Type	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= %	ER= %	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= %	ER= %
		<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %	ER= %	<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %	ER= %
		<input type="checkbox"/> Clear	Area= m <sup>2</sup>	SC=	VLT= %	ER= %	<input type="checkbox"/> Clear	Area= m <sup>2</sup>	SC=	VLT= %	ER= %
	Double Glazing	<input type="checkbox"/> Yes <input type="checkbox"/> No									
External Shading	<input type="checkbox"/> Yes <input type="checkbox"/> No										
Solar Radiation through Glazing		0.00 W/m <sup>2</sup>									
Average Absorptivity (roof)		0.7									
Overall RTTV <sub>Roof</sub>		2.73 W/m <sup>2</sup>									